

**METHOD AND SYSTEM FOR ASSESSING AND
OPTIMIZING CRUDE SELECTION**

ABSTRACT OF THE DISCLOSURE

A method and system for assessing and optimizing crude selection are provided. A predictive engine uses data from a database to execute at least one predictive performance model and/or at least one risk assessment model designed to optimize or improve refining operations during a refining process. The predictive engine takes as input key crude information corresponding to a particular crude or crude blend, e.g., at least one crude slate, and refinery operating parameters and/or conditions corresponding to a specific refinery and uses desirability metrics to assess the similarity to data in the database. Based on the resulting output, at least one predictive performance and/or at least one risk assessment model uses the output to predict performance or risk measures of refining the particular crude or crude blend using the specific refinery during the refining process, the probability of problems occurring during the refining process, the distribution of the problems throughout the refining process, etc.